

requirements of an intended application. The toy top comprises a rotational inertia member and a top spindle with a spinning tip and a gripping stem, said gripping stem providing means by which to manually drive the top into a spinning state of motion. With the addition of a curvilinear form to the under surface of said rotational inertia member, the device may be held inverted and horizontal to form a navigational device with said spinning tip functionally serving as a gnomon."

to:

"—The invention comprises a toy top spindle having a central axis and an associated label, wherein a ~~single or plurality of compact discs are~~ disc is used as ~~a~~ rotational inertia ~~members~~ member to form a toy top assembly. ~~The compact disc may have labels containing printed matter affixed thereto for added appeal or to meet the requirements of an intended application.~~ The toy top spindle comprises a ~~rotational inertia member and a top spindle with a~~ spinning tip, a threaded cylinder and a gripping stem, said threaded cylinder providing means to fixedly clamp said compact disc onto a medial portion along said toy top spindle central axis, said gripping stem providing means by which to manually drive the top into a spinning state of motion. The compact disc may have labels containing printed matter affixed thereto for added appeal or to meet the requirements of an intended application. With the addition of a curvilinear form to the under surface of said rotational inertia member, the device may be held inverted and horizontal to form a navigational device with said spinning tip functionally serving as a gnomon."

CLAIMS:

Cancel the claims of record (1 to 20) and substitute new claims 21 to 35 as follows:

21. A top spindle for use with a single or plurality of rotational inertia members comprised of compact disc media storage disks to form a toy top assembly, said top spindle having a spindle axis, said rotational inertia member comprising a rigid disk having a mounting

hub flange of a predetermined thickness and a central opening hole having a predetermined diameter, said compact disc providing means for electronically recording, storing or playing back audio, video, textual, computer code, gaming software or other mediums in digital form, wherein said top spindle comprises:

- a) a spinning tip forming a lower end extremity of said spindle, said spinning tip having an axis concentric with said spindle axis, and
 - b) a threaded cylinder having a major diameter less than said rotational inertia member central opening hole and joined integrally with an upper end portion of said spindle, said threaded cylinder having an axis concentric with said spindle axis, and
 - c) a gripping stem comprising a shaft of axially varying diameter, said shaft having a maximum diameter less than said rotational inertia member central opening hole and providing means for manual spinning of said toy top assembly, said gripping stem joined integrally to an upper end portion of said spindle and having an axis concentric with said spindle axis.
22. A top spindle according to claim 21, wherein said top spindle includes a locating hub having a maximum diameter greater than said threaded cylinder and a minimum diameter less than said rotational inertia member central opening hole, said locating hub joined integrally with an upper end portion of said top spindle and having an axis concentric with said top spindle axis, said locating hub projecting into said rotational inertial member central opening hole in said toy top assembly thereby providing means to position said rotational inertia member concentric with said spindle axis in said toy top assembly.
23. A top spindle according to claim 22, wherein said spindle includes a bearing platform joined integrally with an upper end portion of said spindle, said bearing platform

extending laterally from and located axially adjacent to said locating hub, said bearing platform providing means to fixedly position said rotational inertia member along said spindle axis in said toy top assembly.

24. A gripping stem according to claim 21, wherein said gripping stem includes a spinning knob comprising grasping features selected from the group consisting of knurled, upset, machined, adhesive, grooved and embedded aggregates, said grasping features providing means to assist manual spinning of said toy top, said spinning knob joined integrally with and forming the upper end extremity of said gripping stem.
25. A top spindle comprising an assembly of at least two discrete parts and for use with a rotational inertia member comprised of a compact disc media storage disk to form a toy top assembly, said compact disc comprising a rigid disk having a mounting hub flange of a predetermined thickness and a central opening hole having a predetermined diameter, said compact disc providing means for electronically recording, storing or playing back audio, video, textual, computer code, gaming software or other mediums in digital form, wherein said top spindle has a central axis and comprises:
- a) a discrete spinning tip part forming a lower end portion of said top spindle and having an axis concentric with said top spindle central axis, wherein said discrete spinning tip includes:
 - i. an axially tapering shaft of varying diameter terminating in an end tip selected from the group consisting of point, spherical radius and rounded feature, said end tip forming the lower end extremity of said spinning tip, said axially tapering shaft having an axis concentric with said spindle central axis, and
 - ii. a threaded cylinder having a thread major diameter less than said compact disc central opening hole and located at an upper end portion of said discrete

spinning tip, said threaded cylinder having an axis concentric with said spindle central axis, and

b) a discrete gripping stem part forming an upper end portion of said top spindle and having an axis concentric with said spindle central axis, wherein said discrete gripping stem includes:

- i. a shaft of axially varying diameter, said shaft having a maximum diameter less than said compact disc central opening hole and providing means for manual spinning of said toy top assembly, said gripping stem having an axis concentric with said spindle central axis, and
- ii. a threaded cylinder having a thread major diameter less than said compact disc central opening hole and located at a lower end portion of said gripping stem, said threaded cylinder having an axis concentric with said spindle central axis.

26. A discrete gripping stem part according to claim 25, wherein said discrete gripping stem part includes a spinning knob comprising grasping features selected from the group consisting of knurled, upset, machined, adhesive, grooved and embedded aggregates, said grasping features providing means to assist manual spinning of said toy top, said spinning knob joined integrally with and forming the upper end extremity of said gripping stem.

27. A discrete spinning tip threaded cylinder according to claim 25, wherein said threaded cylinder is a male threaded shaft.

28. A discrete spinning tip threaded cylinder according to claim 25, wherein said threaded cylinder is a female threaded hole.

29. A discrete gripping stem threaded cylinder according to claim 25, wherein said threaded cylinder is a male threaded shaft.
30. A discrete gripping stem threaded cylinder according to claim 25, wherein said threaded cylinder is a female threaded hole.
31. A discrete spinning tip part according to claim 25, wherein said discrete spinning tip part includes a locating hub having a maximum diameter greater than said threaded cylinder and a minimum diameter less than said compact disc central opening hole, said locating hub joined integrally with an upper end portion of said discrete spinning tip and having an axis concentric with said top spindle central axis, said locating hub projecting into said compact disc central opening hole in said toy top assembly thereby providing means to position said compact disc concentric with said spindle central axis in said toy top assembly.
32. A discrete spinning tip part according to claim 31, wherein said discrete spinning tip part includes a bearing platform joined integrally with an upper end portion of said discrete spinning tip, said bearing platform extending laterally from and located axially adjacent to said locating hub, said bearing platform providing means to fixedly position said compact disc along said spindle central axis in said toy top assembly.
33. A discrete gripping stem part according to claim 25, wherein said discrete gripping stem part includes a locating hub having a maximum diameter greater than said threaded cylinder and a minimum diameter less than said compact disc central opening hole, said locating hub joined integrally with a lower end portion of said discrete gripping stem and having an axis concentric with said top spindle axis, said locating hub projecting into said compact disc central opening hole in said toy top assembly thereby providing

means to position said compact disc concentric with said spindle central axis in said toy top.

34. A discrete gripping stem part according to claim 33, wherein said discrete gripping stem part includes a bearing platform joined integrally with an upper end portion of said spindle, said bearing platform extending laterally from and located axially adjacent to said locating hub, said bearing platform providing means to fixedly position said compact disc along said spindle central axis in said toy top assembly.
35. A toy top comprising a top spindle having a spindle axis and a gripping stem and a spinning tip and a pair of shoulders associated therewith, said toy top designed especially for use with a single or plurality of rotational inertia members comprised of compact disc type media storage disks, said compact discs providing means for electronically recording, storing or playing back audio, video, textual, computer code, gaming software or other mediums in digital form, said rotational inertia member having a prescribed mounting hub flange thickness and a central opening hole, said rotational inertia member hub flange clamped between said shoulder pair, wherein said rotational inertia member includes a single or plurality of labels on which printed matter exists, said printed matter selected from the group consisting of images, patterns, pictures, logos, shapes, colors and text, said label fixedly attached to a planar surface of said rotational inertia member, wherein said printed matter comprises a curvilinear form, said curvilinear form tracing a path of the shadow projected by said spinning tip onto said label when said toy top is subjected to a light source following a prescribed arcuate path relative to said spindle axis, said curvilinear form providing means to fixedly orient the rotational position or angle of said toy top relative to an inertial earth reference and thereby providing means for said toy top to function as a navigational device.